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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,147	02/07/2002	Tomi Hakkarainen	4208-4027	1454

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New York, NY 10154-0053

EXAMINER

DINH, MINH

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/072,147

Applicant(s)

HAKKARAINEN ET AL.

Examiner

Minh Dinh

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2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/3/2003</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-39 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 33-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 33 is dependent upon claim 25, which recites the limitation: "receiving the service over a unidirectional channel". Claim 33 itself recites the limitation: "determining whether the service has been dropped; if the service has been dropped, determining whether either the first decryption information or the second decryption information is valid decryption information; if one of the first decryption information or the second decryption information is valid decryption information, decrypting the service with the valid decryption information". The condition "the service has been dropped" is interpreted as "the service is not available". If the service is not available because the connection has been dropped, then there is no service to decrypt. If the connection has not been dropped and the service is not available because there is no valid decryption key, then the question is why a valid key can still be found to decrypt the service. The

claim is contradictory, and as a result, the disclosure fails to enable one skilled in the art to make and use the claimed invention. For examination purposes, the claim limitation is interpreted as "determining whether either the first decryption information or the second decryption information is valid decryption information; if one of the first decryption information or the second decryption information is valid decryption information, decrypting the service with the valid decryption information".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8, 11, 13-27, 29-36 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Wasilewski et al (6,516,412). Wasilewski discloses a cable TV system providing conditional access to services (e.g., TV programs, CATV channels, movies) encrypted using a control word (CW) that changes periodically (col. 4, line 15 – col. 5, line 12).

Regarding claims 1-7, 11, 14-19, 21-27, 30-32, 35-36 and 39, Wasilewski discloses a method for a requester to order a service and for a service provider to provide, in response to the request, the ordered service in an encrypted form and keys

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necessary to decrypt the encrypted service, comprising: receiving a request for a service from a requestor over a bi-directional channel (col. 31, lines 25-63; col. 34, lines 1-12); authenticating the requestor using a public key encryption scheme associated with the IP address of the requestor (col. 12, line 46 – col. 13, line 9; col. 34, lines 13-44; col. 42, line 59 – col. 43, line 12); transmitting an entitlement management message (EMM) including a multi-session key corresponding to a macro period to the requestor over the bi-directional channel for use in decrypting the service (col. 6, lines 25-61; col. 16, line 63 – col. 17, line 13) the multi-session key being first decryption information and functionally equivalent to a seed; transmitting the service, encrypted with encryption information corresponding to the first decryption information, over a unidirectional channel (col. 4, lines 40-45); generating second decryption information corresponding to a micro period which is a control word for use in decrypting the service; transmitting an entitlement control message (ECM) including the second decryption information over the unidirectional channel (col. 6, lines 25-61); and transmitting the service, encrypted with encryption information corresponding to the second decryption information, over the unidirectional channel (col. 6, lines 25-61).

Regarding claim 8, Wasilewski further discloses that the bidirectional channel is one of a wireless network (col. 4, lines 41-43; col. 5, lines 5-9).

Regarding claims 13 and 29, Wasilewski further discloses that the authentication is performed using a user ID and a PIN which meets the limitation of a password (col. 4, lines 45-53).

Regarding claim 20, Wasilewski further discloses retransmitting the second decryption information over a unidirectional channel (col. 4, lines 34-36).

Regarding claim 33, Wasilewski further discloses determining whether either the first or second decryption information is valid decryption information and decrypting the service with valid decryption information (col. 9, lines 12-22, 43-57; col. 38, line 40 – col. 39, line 10).

Regarding claim 34, Wasilewski further discloses that when neither the first decryption information nor the second decryption information is valid decryption information (e.g., end of month), establishing a connection to the service provider via the bi-directional channel; transmitting authentication information over the bi-directional channel; receiving valid decryption information over the bi-directional channel; and decrypting the service using the valid decryption information (col. 2, lines 21-29; col. 34, lines 1-12).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski as applied to claim 8 above, and further in view of Vieweg et al (6,748,082).

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Wasilewski discloses that the bidirectional channel is one of a wireless network; however, Wasilewski does not disclose that the wireless network is a GSM network. Vieweg discloses using a GSM network (col. 2, line 66 – col. 3, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wasilewski method to use a GSM network, as taught by Vieweg. It is particularly simple, and, in terms of automatization ability, efficient for transmission to be in the form of a digital mobile radio short message like GSM-SMS (col. 2, lines 45-50).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski as applied to claim 8 above, and further in view of Gulcu et al (6,925,562). Wasilewski discloses that the bidirectional channel is one of a wireless network; however, Wasilewski does not disclose that the wireless network is a Bluetooth network. Vieweg discloses using a Bluetooth network (col. 2, lines 6-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wasilewski method to use a Bluetooth network, as taught by Gulcu. Bluetooth technology would allow users to connect a wide range of devices easily and quickly, without the need for cables, expanding communications capabilities for mobile devices.

9. Claims 12 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski as applied to claim 1 above, and further in view of Raith (6,510,515). Wasilewski does not disclose that the authentication is performed using a SIM card number. Raith discloses performing authentication using a SIM card number in a

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conditional access system (col. 1, line 60 – col. 2, line 10; col. 11, lines 37-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wasilewski method such that the authentication is performed using a SIM card number, as taught by Raith, in order to allow the system to verify the SIM card.

10. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sagar (US 2003/0063740 A1) in view of Wasilewski. Sagar discloses a method for transmitting decryption information in a conditional access system comprising: receiving a request for a service from a requestor via postal mail; authenticating the requestor; transmitting decryption information stored on a smart card to the requestor via postal mail for use in decrypting the service; transmitting the service, encrypted with encryption information corresponding to the decryption information, over a unidirectional channel (paragraphs 0006-0008, 0014-0015). Sagar uses only one decryption information to for the whole service. Sagar does not use second decryption information which is changed periodically and transmitted to the requester over the unidirectional channel.

Wasilewski discloses using both first decryption information and second decryption information for decrypting a service in a conditional access system, the second decryption information being changed periodically and transmitted to the requester over the unidirectional channel (col. 6, lines 25-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sagar method to use second decryption information which is changed periodically and transmitted to the

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requester over the unidirectional channel, as taught by Wasilewski, in order to make decryption of service even more difficult for pirates (col. 4, lines 36-39).

11. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sagar in view of Wasilewski as applied to claim 37 above, and further in view of Maillard et al (6,714,650). Sagar discloses using a smart card to store the decryption information. Sagar does not disclose that the smart card is a SIM card. Maillard discloses using a SIM card in a conditional access system (col. 2, lines 19-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method of Sagar and Wasilewski to use a SIM card, as taught by Maillard, which allows mobile phones to be used in a conditional access system.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,805,705 to Gray et al.

U.S. Patent No. 5,991,400 to Kamperman

U.S. Patent No. 6,047,051 to Ginzboorg et al.

U.S. Patent No. 6,629,243 to Kleiman et al.

U.S. Patent No. 6,650,754 to Akiyama et al.

U.S. Patent No. 6,766,451 to Van Rijnsoever

U.S. Patent No. 6,804,357 to Ikonen et al.

U.S. Patent No. 6,870,932 to Jiang

U.S. Patent Application Publication No. 2002/0001386 to Akiyama

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dinh whose telephone number is 571-272-3802.

The examiner can normally be reached on Mon-Fri: 10:00am-6:30pm.

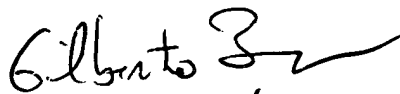
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD

Minh Dinh
Examiner
Art Unit 2132

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12/12/05


GILBERTO BARRÓN JR.
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